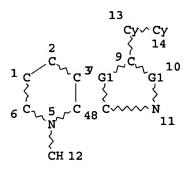
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L3 HAS NO ANSWERS

L3 STR



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GRAPH ATTRIBUTES:
RSPEC 8 4
NUMBER OF NODES IS 14

L5

STEREO ATTRIBUTES: NONE

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100.0% PROCESSED 188818 ITERATIONS SEARCH TIME: 00.00.04

227 SEA SSS FUL L3

227 ANSWERS

VAR G1=O/S/N VAR G2=1/2/3/4/6NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RSPEC 8 NUMBER OF NODES IS

STEREO ATTRIBUTES: NONE

=> search 16

ENTER TYPE OF SEARCH (SSS), CSS, FAMILY, OR EXACT:sss

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ENTER SUBSET L# OR (END):

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FULL SUBSET SEARCH INITIATED 10:03:44 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED -63 TO ITERATE

100.0% PROCESSED 63 ITERATIONS

21 ANSWERS

SEARCH TIME: 00.00.01

L7 21 SEA SUB=L5 SSS FUL L6

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL

> ENTRY SESSION

210.44 210.65

FULL ESTIMATED COST

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FILE COVERS 1907 - 6 Jul 2006 VOL 145 ISS 2 FILE LAST UPDATED: 5 Jul 2006 (20060705/ED)

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http://www.cas.org/infopolicy.html

=> s 17

L8 5 L7

=> d bib abs hitstr 1-5

L8 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1144498 CAPLUS

DN 143:432021

TI Discovery of 4-heteroarylbicyclo[2.2.2]octyltriazoles as potent and selective inhibitors of 11 β -HSD1: Novel therapeutic agents for the treatment of metabolic syndrome

AU Gu, Xin; Dragovic, Jasminka; Koo, Gloria C.; Koprak, Sam L.; LeGrand, Cheryl; Mundt, Steven S.; Shah, Kashmira; Springer, Marty S.; Tan, Eugene Y.; Thieringer, Rolf; Hermanowski-Vosatka, Anne; Zokian, Hratch J.; Balkovec, James M.; Waddell, Sherman T.

CS Department of Medicinal Chemistry, Merck & Co., Inc., Rahway, NJ, 07065, USA

SO Bioorganic & Medicinal Chemistry Letters (2005), 15(23), 5266-5269 CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier B.V.

DT Journal

LA English

GI

Ι

AB Heteroaryl substituted bicyclo[2.2.2]octyltriazoles are potent and selective 11β-hydroxysteroid dehydrogenase type I inhibitors with excellent pharmacokinetic profiles. The trifluoromethyl carbinol derivative I had superior in vitro activity and excellent in vivo activity.

IT 868783-74-8P

868783-74-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(heteroarylbicyclo[2.2.2]octyltriazoles as potent and selective inhibitors of 11 β -HSD1)

RN 868783-74-8 CAPLUS

CN 2(1H)-Pyridinone, 1-methyl-5-[5-[4-[4-methyl-5-[2-(trifluoromethyl)phenyl]-4H-1,2,4-triazol-3-yl]bicyclo[2.2.2]oct-1-yl]-1,2,4-oxadiazol-3-yl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:423718 CAPLUS

DN 142:482046

TI Preparation of triazole compounds as 11β -hydroxysteroid dehydrogenase 1 inhibitors

IN Cardozo, Mario G.; Powers, Jay P.; Goto, Hiroyuki; Harada, Kazuhito;
Imamura, Katsuaki; Kakutani, Makoto; Matsuda, Isamu; Ohe, Yasuhiro; Yata,
Shinji

PA Amgen SF LLC, USA; Japan Tobacco, Inc.

SO PCT Int. Appl., 107 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN. CNT 1

	· • • • • • • • • • • • • • • • • • • •						
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	WO 2005044192	A2	20050519	WO 2004-US35805	20041027		
	WO 2005044192	A3	20050909				

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

Ι

PRAI US 2003-515537P P 20031028 OS MARPAT 142:482046 GI

$$\begin{array}{c|c}
R4 & & & & \\
R5 & & & & \\
R5 & & & & \\
R1 & & & & \\
\end{array}$$

AB The present invention provides triazole compds. of the following formula (I)or prodrugs thereof or pharmaceutically acceptable salts thereof [R1 = (un)substituted alkyl or cycloalkyl; Y = each (un)substituted cycloalkyl or heterocycloalkyl; Ar1 = aryl, heteroaryl; R2, R3 = H, halo, haloalkyl, alkyl group, (CH2) nOH, -N(R9) (R10), cyano, NO2, alkoxy, cycloalkyl, alkenyl, COR11, each (un) substituted aryl or heteroaryl group [wherein R9, R10 = H, alkyl, alkylcarbonyl; R11 = OH, alkoxy, alkyl, (un) substituted NH2; n = 0-3]; Z = [CH(R14)]p, [CH(R14)]p-N(R16)[CH(R15)]q, each (un) substituted cycloalkylidene or heterocycloalkylidene [wherein p, q = 0-3; R14, R15 = group listed in R9 and R10]; Ar2 = aryl, heteroaryl, Q, Q1, Q2 [wherein X1 = (CH2)t; t = 0-2; V1 = :CH, :N; W1 = (un)substituted CH2, O, S, SO2, SO, CO, (un)substituted NH]; R4, R5 = H, halo, OH, NO2, cyano, alkyl, alkoxy, COR27, SO2R27, each (un) substituted CONH2 or NH2; R27 = OH, alkoxy, alkyl, NH2, alkylamino, dialkylamino]. These triazole compds. are 11β-hydroxysteroid dehydrogenase 1-(11β-HSD1 or HSD1) and useful as therapeutic drugs for the treatment of diabetes, obesity or metabolic syndrome. Thus, Me N-methyl-4-phenylpiperidine-1imidethiocarboxylate hydroiodide (452 mg) and 1-phenylcyclopropane carbohydrazide (176 mg) were suspended in 1,4-dioxane (2 mL) and water (0.4 mL) and sodium acetate (98 mg) were added and the mixture was heated under reflux overnight to give, after workup and silica gel chromatog., 117 mg 1-[4-methyl-5-(1-phenylcyclopropyl)-4H-[1,2,4]triazol-3-yl]-4phenylpiperidine hydrochloride (II). II showed IC50 of <10 nM against human HSD1.

IT 851765-16-7P 851766-15-9P

RN

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of triazole compds. as 11β-hydroxysteroid dehydrogenase 1
inhibitors for treatment of diabetes, obesity or metabolic syndrome)
851765-16-7 CAPLUS

CN Piperidine, 1-[(2,4-dichlorophenyl)methyl]-4-[4-methyl-5-(1phenylcyclopropyl) -4H-1,2,4-triazol-3-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \text{C1} \\ \hline & \text{N} & \text{N-CH}_2 \\ \hline & \text{Ph} & \text{N-N} \\ \end{array}$$

HCl

RN 851766-15-9 CAPLUS

Piperidine, 1-[(2,6-dichlorophenyl)methyl]-4-[4-methyl-5-(1-CNphenylcyclopropyl)-4H-1,2,4-triazol-3-yl]-, monohydrochloride (9CI) INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \text{Cl} \\ \hline & \text{N} & \text{CH}_2 \\ \hline & \text{Ph} & \text{N} - \text{N} \end{array}$$

HC1

```
ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
L8
AN
          2004:534172 CAPLUS
DN
          141:89090
          Preparation of aryloxadiazols and related compounds as histamine H3
ΤI
          receptor antagonist.
IN
          Sorensen, Jan Lindy; Andersen, Knud Erik; Pettersson, Ingrid
          Novo Nordisk A/S, Den.
PA
SO
          PCT Int. Appl., 96 pp.
          CODEN: PIXXD2
DT
          Patent
LA
          English
FAN.CNT 1
          PATENT NO.
                                                  KIND
                                                                 DATE
                                                                                         APPLICATION NO.
                                                                                                                                        DATE
                                                   _ _ _ _
PΙ
          WO 2004054973
                                                    A2
                                                                 20040701
                                                                                         WO 2003-DK897
                                                                                                                                        20031218
          WO 2004054973
                                                    A3
                                                                 20040819
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RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, MI, MR, NE, SN, TD.
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TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

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                           A1
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                                              AU 2003-287914
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                           A1
     EP 1585515
                           A2
                                 20051019
                                             EP 2003-779754
                                                                      20031218
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     JP 2006514105
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                                                                      20031218
PRAI DK 2002-1932
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     DK 2003-484
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                                 20021218
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                                 20030404
     US 2003-460777P
     WO 2003-DK897
                                 20031218
os
     MARPAT 141:89090
GI
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$$Z \longrightarrow A \longrightarrow R^{1}$$
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 $I \longrightarrow NH_{2}$
 $I \longrightarrow NH_{2} \longrightarrow NH_{2} \longrightarrow NH_{2}$
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 $I \longrightarrow NH_{2} \longrightarrow NH_{2} \longrightarrow NH_{2} \longrightarrow NH_{2} \longrightarrow NH_{2}$
 $I \longrightarrow NH_{2} \longrightarrow NH_$

III

AB Title compds. I [A = (CH2)r; r = 0-2; Z = (CH2)s-X-(CH2)t-Y-R4; s = 0-3; T = 0-3; X = CO, CHOH, CR2R3, etc.; R2, R3 = H, alkyl; Y = (un)substituted heteroaryl R1 = (un)substituted alkyl, alkenyl, alkynyl;] and their formulations and pharmaceutically acceptable salts were prepared For example, condensation of 4-methanesulfonylbenzoyl chloride and N-hydroxypropionamidine II, e.g., prepared from 4-piperidineethanol in 3-steps, afforded the hydrochloride of piperidinyloxadiazol III. In human histamine H3 receptor binding assays, compds. I generally show a high binding affinity to the histamine H3 receptor. Of note, compds. I possess histamine H3 receptor antagonistic activity and are useful in the treatment of disorders in which a histamine H3 receptor blockade is beneficial.

TT 713147-02-5P 713147-22-9P 713147-25-2P
713147-33-2P 713147-34-3P 713147-36-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)

(preparation of aryloxadiazols and related compds. as histamine H3 receptor antagonist.)

RN 713147-02-5 CAPLUS

CN Piperidine, 4-(5-[1,1'-biphenyl]-4-yl-1,2,4-oxadiazol-3-yl)-1-(1-ethylpropyl)- (9CI) (CA INDEX NAME)

RN 713147-22-9 CAPLUS

CN Piperidine, 4-(5-[1,1'-biphenyl]-4-yl-1,2,4-oxadiazol-3-yl)-1-(1-methylethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 713147-25-2 CAPLUS

CN Piperidine, 4-[5-(4-cyclohexylphenyl)-1,2,4-oxadiazol-3-yl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN 713147-33-2 CAPLUS

CN Piperidine, 4-(5-[1,1'-biphenyl]-4-yl-1,2,4-oxadiazol-3-yl)-1-methyl-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 713147-32-1 CMF C20 H21 N3 O

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 713147-34-3 CAPLUS

CN Piperidine, 3-(5-[1,1'-biphenyl]-4-yl-1,2,4-oxadiazol-3-yl)-1-(1-methylethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

RN 713147-36-5 CAPLUS

CN Piperidine, 4-[5-(4'-chloro[1,1'-biphenyl]-4-yl)-1,2,4-oxadiazol-3-yl]-1-(1-methylethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

L8 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:892800 CAPLUS

DN 139:395950

TI Preparation of substituted pyrazines as protein kinase modulators

IN Buhr, Chris A.; Baik, Tae-Gon; Ma, Sunghoon; Tesfai, Zerom; Wang, Longcheng; Co, Erick Wang; Epshteyn, Sergey; Kennedy, Abigail R.; Chen, Baili; Dubenko, Larisa; Anand, Neel Kumar; Tsang, Tsze H.; Nuss, John M.; Peto, Csaba J.; Rice, Kenneth D.; Ibrahim, Mohamed Abdulkader; Schnepp, Kevin Luke; Shi, Xian; Leahy, James William; Chen, Jeff; Dalrymple, Lisa Esther; Forsyth, Thimothy Patrick; Huynh, Tai Phat; Mann, Grace; Mann, Lary Wayne; Takeuchi, Craig Stacy

PA Exelixis, Inc., USA

SO PCT Int. Appl., 468 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.		KIND	DATE	APPLICATION NO.	DATE		
PI	WO 2003093297 WO 2003093297	A2 A3	20031113	WO 2003-US13869	20030502		

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     EP 1501514
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                          A2
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PRAI US 2002-377933P
                          P
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     WO 2003-US13869
                          W
    MARPAT 139:395950
os
GI
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AΒ This invention relates to compds. I [R1 = H, halo, CN, etc.; R2, R3 = H, alkyl, aryl, etc.; R4 = H, alkyl, aryl, etc.; Z = N, CH; A = CO, CS, C(:NR6), R7 (when A = R7, E does not exist); R6 = H, NO2, CN, etc.; R7 = (un)substituted 5-7 membered heterocyclyl; E = NR8R9, NNR2R3, OR4, etc.; R8 = H, alkyl; R9 = H, heteroarylalkyl, etc.; NR8R9 = (un)substituted 5-7 membered heteroalicyclyl; W = 6-10 membered arylene, 5-10 membered heteroarylene; X = a bond, (un)substituted alkylene, O(CH2)2-30, etc.; Y = H, alkyl, aryl, etc.; with provisos] for modulating protein kinase enzymic activity for modulating cellular activities such as proliferation, differentiation, programmed cell death, migration and chemoinvasion, and to pharmaceutical compns. containing such compds. Even more specifically, the invention relates to compds. I that inhibit, regulate and/or modulate kinases, particularly Checkpoint Kinases, even more particularly Checkpoint Kinase 1, or Chk1. Preparation of representative compds. I is described. Thus, amidation of 3-amino-6-phenylpyrazinecarboxylic acid (preparation given) with benzylamine afforded 67% 3-amino-6-phenyl-N-(phenylmethyl)pyrazine-2-carboxamide which showed IC50 of 10,000 nM or greater against Chkl. Table presenting activity data with respect to Chkl for over 1000 compds. I is given. Methods of therapeutically or prophylactically using the compds. I and compns. to treat kinase-dependent diseases and conditions are also an aspect of the invention, and include methods of treating cancer, as well as other disease states associated with unwanted angiogenesis and/or cellular proliferation, by administering effective amts. of such compds.

IT 625466-76-4P 625466-77-5P 625466-80-0P 625466-81-1P 625467-58-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of protein kinase modulators) 625466-76-4 CAPLUS

RN 625466-77-5 CAPLUS

CN Pyrazinamine, 5-[3-[[(1S)-2,3-dihydro-1H-inden-1-yl]amino]methyl]phenyl]-3-[5-(1-ethyl-3-piperidinyl)-1H-1,2,4-triazol-3-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 625466-80-0 CAPLUS

CN Benzenemethanol, 3-[5-amino-6-[5-(1-methyl-3-piperidinyl)-1H-1,2,4-triazol-3-yl]pyrazinyl]- (9CI) (CA INDEX NAME)

RN 625466-81-1 CAPLUS

CN Pyrazinamine, 5-[3-[[[(1S)-2,3-dihydro-1H-inden-1-yl]amino]methyl]phenyl]-3-[5-(1-methyl-3-piperidinyl)-1H-1,2,4-triazol-3-yl]- (9CI) (CA INDEX

Absolute stereochemistry.

RN 625467-58-5 CAPLUS

CN Benzamide, 3-[5-amino-6-[5-(1-methyl-3-piperidinyl)-1H-1,2,4-triazol-3-yl]pyrazinyl]-N-[(2-chloro-6-fluorophenyl)methyl]- (9CI) (CA INDEX NAME)

- L8 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2001:851132 CAPLUS
- DN 136:5994
- TI Preparation of triazole derivatives as glycine transporter inhibitors useful as learning improving agents
- IN Tobe, Takahiko; Sugane, Takashi; Hamaguchi, Wataru; Shimada, Itsuro; Maeno, Kyoichi; Miyata, Junji; Kimizuka, Tetsuya; Suzuki, Takeshi; Kohara, Atsuyuki; Morita, Takuma; Arlt, Michael; Greiner, Hartmut
- PA Yamanouchi Pharmaceutical Co., Ltd., Japan; Merck Patent Gesellschaft mit Beschrankter Haftung
- SO PCT Int. Appl., 68 pp. CODEN: PIXXD2
- DT Patent
- LA Japanese

FAN.CNT 1

	PATENT	NO.			KIN	D	DATE			APPL	ICAT	ION 1	NO.		D	ATE	
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PI	WO 2001087855			A1 20011122		1122	WO 2001-JP4128					20010517					
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                                                                     20050922
PRAI JP 2000-148419
                          Α
                                 20000519
     JP 2001-47921
                          Α
                                 20010223
     WO 2001-JP4128
                          W
                                 20010517
     US 2002-276720
                                 20021118
                          A3
     US 2004-848386
                                 20040519
                          A3
     MARPAT 136:5994
os
GI
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AB Title compds. [I; A = aryl, heterocycly, cycloalkyl; B = aryl, pyridyl; D = aryl; R = H, CH3, CH3CH2, (CH3)2CH, CH3(CH2)2, CH3O(CH2)3, CH3CH2NH, (CH3)2N, CH3OCH2CH2NH], having glycine transporter inhibitory activity, are prepared for remedies as learning improving agents. Thus, the title compound II was prepared and biol. tested.

IT 374888-47-8P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of triazole derivs. as glycine transporter inhibitors)

RN 374888-47-8 CAPLUS

CN Piperidine, 4-[5-[1,1'-biphenyl]-4-yl-4-(2-fluorophenyl)-4H-1,2,4-triazol-3-yl]-1-(phenylmethyl)- (9CI) (CA INDEX NAME)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
AN
     2000:136274 CAPLUS
DN
     132:166239
ΤI
     Preparation of triazoles as arginine vasopressin V1 receptor antagonists,
     and pharmaceuticals containing them
IN
     Suzuki, Takeshi; Tobe, Takahiko; Murakami, Takeshi; Tahara, Atsuo
PΑ
     Yamanouchi Pharmaceutical Co., Ltd., Japan
     Jpn. Kokai Tokkyo Koho, 31 pp.
SO
     CODEN: JKXXAF
DT
    Patent
LΑ
    Japanese
FAN.CNT 1
    PATENT NO.
                      KIND DATE
                                         APPLICATION NO.
                                                               DATE
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                                                              19980812 <--
    JP 2000063363
                       A2
                              20000229
                                         JP 1998-228403
PΙ
PRAI JP 1998-228403
                              19980812
    MARPAT 132:166239
os
    JP 2000063363 A2 20000229
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    PATENT NO.
                      KIND DATE
                                         APPLICATION NO.
                                                               DATE
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    JP 2000063363
                        A2 20000229 JP 1998-228403
PΙ
                                                                19980812 <--
AB
    Triazoles I (ring A = benzene or thiophene ring; ring B = aryl,
    heterocyclyl; R1 = H, halo, NO2, NH2, lower alkyl; R2 = alkyl, halo, OH,
    Ph, alkoxy, alkynyl, amino, etc.; R3 = H, lower alkyl; R4 = lower alkyl,
     alkoxy, alkylsulfonyl, halo, amino, cyano, trihalomethyl, nitro; X = bond,
    O, NHCO, etc.; m = 1-3) or their salts, useful for treatment of
    diabetic nephropathy, are prepared 2-(4'-Biphenyl)-1,3,4-oxadiazole
    was treated with o-anisidine at 150° for 12 h to give 12%
     4-(2-methoxyphenyl)-3-(4'-biphenyl)-1,2,4-triazole.
ST
    triazole prepn arginine vasopressin antagonist; diabetic
    nephropathy treatment triazole prepn
IT
    Kidney, disease
        (diabetic nephropathy, treatment; preparation of triazoles as
       arginine vasopressin V1 receptor antagonists)
                                 258877-91-7P
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                                                258877-97-3P
                                                              258877-98-4P
    258877-99-5P 258878-00-1P
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    258878-09-0P
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                                                258879-10-6P
                                                              258879-11-7P
    258879-12-8P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of triazoles as arginine vasopressin V1 receptor antagonists)
TT
    258878-72-7P 258878-74-9P 258878-76-1P
    258878-78-3P 258878-80-7P 258878-89-6P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
```

(preparation of triazoles as arginine vasopressin V1 receptor antagonists)

RN 258878-72-7 CAPLUS

CN Piperidine, 1-[2-[2-(3-[1,1'-biphenyl]-4-yl-5-methyl-4H-1,2,4-triazol-4-yl)phenoxy]ethyl]- (9CI) (CA INDEX NAME)

RN 258878-74-9 CAPLUS

CN Piperidine, 1-[3-[2-(3-[1,1'-biphenyl]-4-yl-5-methyl-4H-1,2,4-triazol-4-yl)phenoxy]propyl]- (9CI) (CA INDEX NAME)

RN 258878-76-1 CAPLUS

CN Piperidine, 1-[6-[2-(3-[1,1'-biphenyl]-4-yl-5-methyl-4H-1,2,4-triazol-4-yl)phenoxy]hexyl]- (9CI) (CA INDEX NAME)

RN 258878-78-3 CAPLUS

CN 1,4'-Bipiperidine, 1'-[6-[2-(3-[1,1'-biphenyl]-4-yl-5-methyl-4H-1,2,4-triazol-4-yl)phenoxy]hexyl]- (9CI) (CA INDEX NAME)

RN 258878-80-7 CAPLUS

CN 1,4'-Bipiperidine, 1'-[6-[2-(3-[1,1'-biphenyl]-4-yl-5-methyl-4H-1,2,4-triazol-4-yl)-3-methylphenoxy]hexyl]- (9CI) (CA INDEX NAME)

$$\bigvee_{\substack{N \\ R \\ R2}}^{N} Me$$

PAGE 2-A

RN

CN

258878-89-6 CAPLUS
Piperidine, 4-[4-[2-(3-[1,1'-biphenyl]-4-yl-5-methyl-4H-1,2,4-triazol-4-yl)phenoxy]butyl]-1-methyl-, dihydrochloride (9CI) (CA INDEX NAME)

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L12 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
AN
    2000:136274 CAPLUS
DN
    132:166239
TI
    Preparation of triazoles as arginine vasopressin V1 receptor antagonists,
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    Suzuki, Takeshi; Tobe, Takahiko; Murakami, Takeshi; Tahara, Atsuo
IN
    Yamanouchi Pharmaceutical Co., Ltd., Japan
PA
SO
    Jpn. Kokai Tokkyo Koho, 31 pp.
    CODEN: JKXXAF
DT
    Patent
LΑ
    Japanese
FAN.CNT 1
    PATENT NO.
                      KIND DATE
                                       APPLICATION NO. DATE
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    JP 2000063363
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PRAI JP 1998-228403
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    MARPAT 132:166239
OS
    JP 2000063363 A2 20000229
PΙ
    PATENT NO.
                     KIND DATE
                                       APPLICATION NO.
                                                              DATE
                        A2 20000229 JP 1998-228403
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    JP 2000063363
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    heterocyclyl; R1 = H, halo, NO2, NH2, lower alkyl; R2 = alkyl, halo, OH,
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    4-(2-methoxyphenyl)-3-(4'-biphenyl)-1,2,4-triazole.
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    nephropathy treatment triazole prepn
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    Kidney, disease
       (diabetic nephropathy, treatment; preparation of triazoles as
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    258879-07-1P
                                                             258879-11-7P
    258879-12-8P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
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    BIOL (Biological study); PREP (Preparation); USES (Uses)
       (preparation of triazoles as arginine vasopressin V1 receptor antagonists)
    258878-72-7P 258878-74-9P 258878-76-1P
IT
    258878-78-3P 258878-80-7P 258878-89-6P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
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BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of triazoles as arginine vasopressin V1 receptor antagonists)
258878-72-7 CAPLUS
Piperidine, 1-[2-[2-(3-[1,1'-biphenyl]-4-yl-5-methyl-4H-1,2,4-triazol-4-yl)phenoxy]ethyl]- (9CI) (CA INDEX NAME)

RN

CN

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VAR G1=O/S/N NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 12 23
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

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742 ANSWERS

100.0% PROCESSED 23260 ITERATIONS SEARCH TIME: 00.00.06

L3 742 SEA SSS FUL L1

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1 US5854261/PN => d bib ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN L11996:664618 CAPLUS AN DN 125:301002 TI Preparation of colon motility-increasing oxadiazoles Bosmans, Jean-Paul Rene Marie Andre IN Janssen Pharmaceutica N.V., Belg. PA PCT Int. Appl., 23 pp. CODEN: PIXXD2 Patent DTLA English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ____ WO 9626937 A1 PΙ 19960906 WO 1996-EP784 19960221 W: AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KR, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AZ, BY, KG, KZ, MD, RU, TJ, TM
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IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG CA 2212893 AA 19960906 CA 1996-2212893 19960221 AU 9647188 19960918 AU 1996-47188 19960221 A1 AU 702932 19990311 B2 EP 1996-903000 EP 812321 A1 19971217 19960221 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV BR 9607316 Α 19971230 BR 1996-7316 19960221 CN 1177352 CN 1996-192300 19960221 Α 19980325 CN 1092656 В 20021016 JP 1996-526010 Т2 JP 11501021 19990126 19960221 В6 CZ 1997-2723 CZ 286992 19960221 20000816 PL 1996-322019 PL 183712 B1 20020731 19960221 ZA 1996-1652 ZA 9601652 Α 19970911 19960229 IL 117315 A1 20000726 IL 1996-117315 19960229 US 5854261 Α 19981229 US 1997-894340 19970815 <--NO 9703808 Α 19970819 NO 1997-3808 19970819 NO 309425 В1 20010129 FI 1997-3562 19970829 FI 9703562 Α 19970829 PRAI EP 1995-200501 Α 19950301 19960221 WO 1996-EP784 W MARPAT 125:301002 OS => analyze 11 ENTER ANSWER NUMBER OR RANGE (1-):1 ENTER DISPLAY CODE (TI) OR ?:rn L2 ANALYZE L1 1 RN : 31 TERMS => fil re 'RE' IS AN AMBIGUOUS FILE OR CLUSTER NAME REACTION - Reactions Cluster RESEARCH - Research Cluster - The CAS Registry File of substances ENTER FILE OR CLUSTER NAME (IGNORE):reg COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

=> s us5854261/pn

FILE 'REGISTRY' ENTERED AT 14:50:35 ON 26 JUN 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 25 JUN 2006 HIGHEST RN 889359-45-9 DICTIONARY FILE UPDATES: 25 JUN 2006 HIGHEST RN 889359-45-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> s 12 L3 31 L2

=> d scan

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN Benzenecarboximidamide, 4-amino-5-chloro-N-hydroxy-2-methoxy-, monohydrochloride (9CI)

MF C8 H10 C1 N3 O2 . C1 H

$$\begin{array}{c|c} \text{C1} & \text{NH} \\ \parallel \\ \text{C-NH-OH} \\ \\ \text{OMe} \end{array}$$

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):30

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

MF C13 H16 C1 N O3

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 1-Piperidinecarboxylic acid, 4-[(hydroxyamino)iminomethyl]-, ethyl ester
(9CI)

MF C9 H17 N3 O3

CI COM

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 4-Benzofuranamine, 5-chloro-2,3-dihydro-2,2-dimethyl-7-[5-(4-piperidinyl)1,2,4-oxadiazol-3-yl]- (9CI)

MF C17 H21 C1 N4 O2

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 7-Benzofurancarboximidamide, 4-amino-5-chloro-2,3-dihydro-N-hydroxy-,

monohydrochloride (9CI) MF C9 H10 C1 N3 O2 . C1 H

HC1

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 7-Benzofurancarboxamide, 4-amino-5-chloro-2,3-dihydro- (9CI)

MF C9 H9 C1 N2 O2

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 4-Benzofuranamine, 5-chloro-2,3-dihydro-2,2-dimethyl-7-[3-(4-piperidinyl)-1,2,4-oxadiazol-5-yl]- (9CI)

MF C17 H21 C1 N4 O2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 1-Piperidinecarboxylic acid, 4-[5-(4-amino-5-chloro-2,3-dihydro-7-benzofuranyl)-1,2,4-oxadiazol-3-yl]-, ethyl ester (9CI)

MF C18 H21 C1 N4 O4

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 7-Benzofurancarboxylic acid, 4-amino-5-chloro-2,3-dihydro-, methyl ester
(9CI)

MF C10 H10 C1 N O3

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN Benzenamine, 2-chloro-5-methoxy-4-[5-[1-[(tetrahydro-2-furanyl)methyl]-4-piperidinyl]-1,2,4-oxadiazol-3-yl]- (9CI)

MF C19 H25 C1 N4 O3

$$\begin{array}{c|c} & \text{OMe} & & \text{OMe} \\ & & & \\ \text{C1} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN Benzenamine, 2-chloro-4-[5-[1-[3-(4-fluorophenoxy)propyl]-4-piperidinyl]-1,2,4-oxadiazol-3-yl]-5-methoxy- (9CI)

MF C23 H26 C1 F N4 O3

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 1-Piperidinebutanenitrile, 4-[5-(4-amino-5-chloro-2,3-dihydro-2,2-dimethyl-7-benzofuranyl)-1,2,4-oxadiazol-3-yl]- (9CI)

MF C21 H26 C1 N5 O2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 4-Benzofuranamine, 5-chloro-2,3-dihydro-7-[3-[1-(3-methoxypropyl)-4-piperidinyl]-1,2,4-oxadiazol-5-yl]-, monohydrochloride (9CI)

MF C19 H25 C1 N4 O3 . C1 H

● HCl

REGISTRY COPYRIGHT 2006 ACS on STN L3 31 ANSWERS

2-Furanmethanol, tetrahydro-, methanesulfonate (9CI) IN

MF C6 H12 O4 S

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN L3

(

IN Butanenitrile, 4-bromo- (9CI)

MF C4 H6 Br N

Br-(CH₂)₃-CN

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN Carbonochloridic acid, ethyl ester (9CI) L3

IN

MF C3 H5 C1 O2

COM CI

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 1-Piperidinecarboxylic acid, 4-[5-(4-amino-5-chloro-2-methoxyphenyl)-1,2,4-oxadiazol-3-yl]-, ethyl ester (9CI)

MF C17 H21 C1 N4 O4

EtO-C MeO NH2
$$N \rightarrow C1$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 1-Piperidinecarboxylic acid, 4-cyano-, ethyl ester (9CI)

MF C9 H14 N2 O2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN Benzenamine, 2-chloro-5-methoxy-4-[5-(4-piperidinyl)-1,2,4-oxadiazol-3-yl](9CI)

MF C14 H17 C1 N4 O2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

-L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 4-Benzofuranamine, 5-chloro-2, 3-dihydro-7-[5-(4-piperidinyl)-1, 2, 4-

oxadiazol-3-yl]- (9CI)

MF C15 H17 C1 N4 O2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 7-Benzofurancarbonitrile, 4-amino-5-chloro-2,3-dihydro- (9CI)

MF C9 H7 C1 N2 O

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN Benzenamine, 2-chloro-5-methoxy-4-[3-(4-piperidinyl)-1,2,4-oxadiazol-5-yl]-(9CI)

MF C14 H17 C1 N4 O2

REGISTRY COPYRIGHT 2006 ACS on STN L3 31 ANSWERS

4-Benzofuranamine, 5-chloro-2,3-dihydro-7-[3-(4-piperidinyl)-1,2,4-IN oxadiazol-5-yl]- (9CI)

MF C15 H17 C1 N4 O2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

REGISTRY COPYRIGHT 2006 ACS on STN L3 31 ANSWERS

1-Piperidinecarboxylic acid, 4-[(hydroxyamino)iminomethyl]-, ethyl ester, IN monohydrochloride (9CI)

C9 H17 N3 O3 . C1 H MF

HCl

L3

31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
Benzenamine, 2-chloro-5-methoxy-4-[3-[1-[(tetrahydro-2-furanyl)methyl]-4-IN piperidinyl]-1,2,4-oxadiazol-5-yl]- (9CI)

MF C19 H25 C1 N4 O3

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN Benzenamine, 2-chloro-4-[3-[1-[3-(4-fluorophenoxy)propyl]-4-piperidinyl]-

1,2,4-oxadiazol-5-yl]-5-methoxy- (9CI)

MF C23 H26 C1 F N4 O3

$$H_2N$$
 OMe
 N
 $C1$
 $O-N$
 N
 $CH_2)_3-O$
 F

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 1-Piperidinebutanenitrile, 4-[3-(4-amino-5-chloro-2,3-dihydro-2,2-dimethyl-7-benzofuranyl)-1,2,4-oxadiazol-5-yl]- (9CI)

MF C21 H26 C1 N5 O2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 4-Benzofuranamine, 5-chloro-2,3-dihydro-7-[5-[1-(3-methoxypropyl)-4-piperidinyl]-1,2,4-oxadiazol-3-yl]- (9CI)
MF C19 H25 Cl N4 O3

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN 7-Benzofurancarboxylic acid, 4-amino-5-chloro-2,3-dihydro- (9CI)
MF C9 H8 Cl N O3

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN IN Propane, 1-chloro-3-methoxy- (9CI) MF C4 H9 Cl O

 $Cl-(CH_2)_3-O-Me$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN IN 4-Piperidinecarboxylic acid, ethyl ester (9CI)

MF C8 H15 N O2

CI COM

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=>

```
=> s us2006122166/pn
             1 US2006122166/PN
=> d bib
     ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
L1
     2004:531360 CAPLUS
AN
DN
     141:88873
     Preparation of heterocyclylalkyl substituted cyclohexyl compounds as CCR5
ΤI
     antagonists
     Duan, Maosheng; Kazmierski, Wieslaw Mieczyslaw; Aquino, Christopher Joseph
IN
     Smithkline Beecham Corporation, USA
PA
     PCT Int. Appl., 103 pp.
so
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
                                           APPLICATION NO.
     PATENT NO.
                         KIND
                                DATE
                                                                   DATE
     -----
                         _ _ _ _
                                -----
                                           _______
                                                                   -----
PΙ
     WO 2004054581
                         A2
                                20040701
                                           WO 2003-US39732
                                                                   20031212
     WO 2004054581
                         A3
                                20050203
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
         W:
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,
            NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
             TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
            BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
             ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
     AU 2003297048
                                20040709
                                          AU 2003-297048
                         A1
                                                                   20031212
     EP 1569647
                                           EP 2003-813435
                         A2
                                20050907
                                                                   20031212
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     JP 2006514646
                         T2
                                20060511
                                           JP 2004-560857
                                                                   20031212
     US 2006122166
                                20060608
                                           US 2005-538135
                                                                   20050609 <--
                         A1
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PRAI US 2002-433552P

os

WO 2003-US39732

MARPAT 141:88873

P

W

20021213

20031212

```
=> s 12
           205 L2
L3
=> s 13 and piperidin?(1)(thiadiaz? or oxadiaz? or triaz?)
        963885 PIPERIDIN?
        253628 THIADIAZ?
        224301 OXADIAZ?
       1012142 TRIAZ?
         48713 PIPERIDIN? (L) (THIADIAZ? OR OXADIAZ? OR TRIAZ?)
             2 L3 AND PIPERIDIN? (L) (THIADIAZ? OR OXADIAZ? OR TRIAZ?)
L4
=> d 1-2
     ANSWER 1 OF 2 REGISTRY COPYRIGHT 2006 ACS on STN
T.4
     714968-13-5 REGISTRY
RN
ED
     Entered STN: 23 Jul 2004
CN
     Carbamic acid, methyl[trans-4-[2-[4-[3-(4-nitrophenyl)-1,2,4-
     oxadiazol-5-yl]-1-piperidinyl]ethyl]-4-phenylcyclohexyl]-, phenylmethyl
     ester (9CI) (CA INDEX NAME)
FS
     STEREOSEARCH
     C36 H41 N5 O5
MF
SR
     CA
                  CA, CAPLUS, TOXCENTER
LC
     STN Files:
```

Relative stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2006 ACS on STN

RN 276237-01-5 REGISTRY

ED Entered STN: 11 Jul 2000

CN Piperidine, 4-[3-(4-nitrophenyl)-1,2,4-oxadiazol-5-yl]- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H14 N4 O3

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
=> s bipheny?(1)bioisos?
         93977 BIPHENY?
           944 BIOISOS?
L1
            10 BIPHENY? (L) BIOISOS?
=> d bib hit 1-10
     ANSWER 1 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
L1
     2006:128488 CAPLUS
ΑN
DN
     144:369975
     8-Fluoroimidazo[1,2-a]pyridine: Synthesis, physicochemical properties and
ΤI
     evaluation as a bioisosteric replacement for imidazo[1,2-a]pyrimidine in
     an allosteric modulator ligand of the GABAA receptor
     Humphries, Alexander C.; Gancia, Emanuela; Gilligan, Myra T.; Goodacre,
ΑU
     Simon; Hallett, David; Merchant, Kevin J.; Thomas, Steve R.
CS
     Merck Sharp and Dohme, Terlings Park, The Neuroscience Research Centre,
     Harlow, Essex, CM20 2QR, UK
     Bioorganic & Medicinal Chemistry Letters (2006), 16(6), 1518-1522
SO
     CODEN: BMCLE8; ISSN: 0960-894X
PB
     Elsevier B.V.
DT
     Journal
LΑ
     English
RE.CNT 25
              THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
AΒ
     8-Fluoroimidazo[1,2-a]pyridine has been established as a physicochem.
     mimic of imidazo[1,2-a]pyrimidine, using both in silico and traditional
                 Furthermore, a novel synthesis of a 3,7-disubstituted-8-
     fluoroimidazopyridine 3 has been developed and the utility of the
     physicochem. mimicry has been demonstrated in an in vitro system. Here,
     the 8-fluoroimidazopyridine ring contained in ligand 2'-fluoro-5'-[8-
     fluoro-7-(2-hydroxy-2-propyl)imidazo[1,2-a]pyridin-3-yl]biphenyl
     -2-carbonitrile acts as a bioisosteric replacement for
     imidazopyrimidine in the GABAA receptor modulator 2'-fluoro-5'-[7-(1-
     hydroxy-1-methylethyl) imidazo[1,2-a]pyrimidin-3-yl]biphenyl
     -2-carbonitrile.
     461449-33-2, 2'-Fluoro-5'-[7-(1-hydroxy-1-methylethyl)imidazo[1,2-
     a]pyrimidin-3-yl]biphenyl-2-carbonitrile
                                                882187-77-1
     RL: PAC (Pharmacological activity); BIOL (Biological study)
        (preparation of derivs. of (fluoro)imidazo[1,2-a]pyridine and study of its
        physicochem. properties and evaluation as bioisosteric
        replacement for imidazo[1,2-a]pyrimidine in allosteric modulator ligand
        of GABAA receptor)
IT
     628690-69-7P, 2'-Fluoro-5'-[8-fluoro-7-(2-hydroxypropan-2-yl)imidazo[1,2-
     a]pyridin-3-yl]biphenyl-2-carbonitrile
     RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation)
        (preparation of imidazo[1,2-a]pyridine, study of its properties, its
        availability as bioisosteric replacement for
        imidazo[1,2-a]pyrimidine in allosteric modulator ligand of GABAA
        receptor and its activity as GABAA α3-receptor subtype agonist)
     ANSWER 2 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
L1
AN
     2005:331777 CAPLUS
DN
     143:43827
TI
     Design, Synthesis, and Antipicornavirus Activity of 1-[5-(4-
     Arylphenoxy) alkyl]-3-pyridin-4-ylimidazolidin-2-one Derivatives
ΑU
     Chang, Chih-Shiang; Lin, Ying-Ting; Shih, Shin-Ru; Lee, Chung-Chi; Lee,
     Yen-Chun; Tai, Chia-Liang; Tseng, Sung-Nien; Chern, Jyh-Haur
CS
     Division of Biotechnology and Pharmaceutical Research, National Health
     Research Institutes, Zhunan, 350, Taiwan
     Journal of Medicinal Chemistry (2005), 48(10), 3522-3535
so
     CODEN: JMCMAR; ISSN: 0022-2623
```

PΒ

American Chemical Society

DT Journal

LA English

OS CASREACT 143:43827

RE.CNT 96 THERE ARE 96 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

A series of pyridylimidazolidinone derivs. was synthesized and tested in AB vitro against enterovirus 71 (EV71). On the basis of DBPR103 (I), introduction of a Me group at the 2- or 3-position of the linker between the imidazolidinone and the biphenyl resulted in markedly improved antiviral activity toward EV71 with IC50 values of 5.0 nM and 9.3 nM, resp. Increasing the branched chain to Pr resulted in a progressive decrease in activity, while inserting different heteroatoms entirely rendered the compound only weakly active. The introduction of a bulky group (cyclohexyl, Ph, or benzyl) led to loss of activity against EV71. 4-chlorophenyl moiety was replaced with bioisosteric groups such as oxadiazole or tetrazole dramatically improving anti-EV71 activity and selectivity indexes. Some of these compds. exhibited a strong activity against lethal EV71, and no apparent cellular toxicity was observed Three of the more potent imidazolidinone compds. were subjected to a large group of picornaviruses to determine their spectrum of antiviral activity.

- L1 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2004:658158 CAPLUS
- TI 4-Hydroxy-phenyl aryloximes as estrogen receptor-beta (ER β) selective ligands
- AU Cohn, Stephen; Harris, Heather; Manas, Eric; Mewshaw, Richard E.
- CS Department of Chemical and Screening Sciences, Wyeth Research, Collegeville, PA, 19426, USA
- SO Abstracts of Papers, 228th ACS National Meeting, Philadelphia, PA, United States, August 22-26, 2004 (2004), MEDI-295 Publisher: American Chemical Society, Washington, D. C. CODEN: 69FTZ8
- DT Conference; Meeting Abstract
- LA English
- AB The development of potent and selective estrogen receptor beta (ER β) ligands is essential in identifying therapeutic possibilities for the ER β receptor. Recently, we discovered that oxime moieties could mimic the 17 β -OH group of estradiol. Herein, we will discuss the identification and development of 4-hydroxy-Ph aryloximes as a novel class of selective, non-steroidal ER β ligands that exploit the oxime bioisosteres. Several substituted 4-OH-Ph aryloximes exhibit significant affinity and selectivity for β receptor. The design, synthesis and SAR of the substituted 4-OH-biphenyl oxime template 1 and the indole oxime template 2 will be described.
- L1 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2003:88088 CAPLUS
- DN 139:307562
- TI 1-(4-biphenylyl)ethylnitramine, bioisostere profene
- AU Unterhalt, B.; Adam, T.
- CS Institut fuer Pharmazeutische und Medizinische Chemie der Westfaelischen Wilhelms-Universitaet Muenster, Muenster, D-48149, Germany
- SO Scientia Pharmaceutica (2002), 70(4), 353-358 CODEN: SCPHA4; ISSN: 0036-8709
- PB Oesterreichische Apotheker-Verlagsgesellschaft
- DT Journal
- LA German
- OS CASREACT 139:307562
- RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- TI 1-(4-biphenylyl)ethylnitramine, bioisostere profene
- IT Alcohols, preparation

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

```
(preparation of 1-(4-biphenylyl)ethylnitramines from 1-(4-
        biphenylyl)-ethanols and Et N-nitro-carbamate as
        bioisostere profene)
TT
     Nitramines
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of 1-(4-biphenylyl)ethylnitramines from 1-(4-
        biphenylyl)-ethanols and Et N-nitro-carbamate as
        bioisostere profene)
IT
     345-54-0P
                 3562-73-0P
                              611238-54-1P 611238-58-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of 1-(4-biphenylyl)ethylnitramines from 1-(4-
        biphenylyl)-ethanols and Et N-nitro-carbamate as
        bioisostere profene)
IT
     611238-62-1P
                    611238-64-3P
                                   611238-66-5P
                                                  611238-68-7P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of 1-(4-biphenylyl)ethylnitramines from 1-(4-
        biphenylyl)-ethanols and Et N-nitro-carbamate as
        bioisostere profene)
IT
     67-63-0, 2-Propanol, reactions 92-91-1, 4-Acetylbiphenyl
                                                                  345-55-1
     53591-79-0
                  611238-50-7
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (starting materials; preparation of 1-(4-biphenylyl
        )ethylnitramines from 1-(4-biphenylyl)-ethanols and Et
       N-nitro-carbamate as bioisostere profene)
     ANSWER 5 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
L1
AN
     2001:923788 CAPLUS
DN
     136:53765
ΤI
     Preparation of bioisosteric benzamide derivatives and their use as
     apoB-100 secretion inhibitors
IN
     Dodic, Nerina
     Glaxo Group Limited, UK
PA
SO
     PCT Int. Appl., 59 pp.
     CODEN: PIXXD2
DT.
     Patent
     English
LA
FAN.CNT 1
     PATENT NO.
                       KIND
                               DATE
                                          APPLICATION NO. DATE
                        ----
     WO 2001096327
                        A1 20011220
                                         WO 2001-EP6243
                                                                  20010601
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
             HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
             RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
             VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     EP 1289982
                         A1
                               20030312
                                          EP 2001-960259
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     JP 2004503549
                         T2
                                20040205
                                          JP 2002-510469
                                                                   20010601
    US 2004009988
                         A1
                                20040115
                                           US 2003-296795
                                                                   20030520
PRAI GB 2000-13383
                         Α
                                20000601
    WO 2001-EP6243
                               20010601
    MARPAT 136:53765
              THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
    bioisosteric benzamide prepn apoB 100 secretion inhibitor;
     apoprotein B 100 secretion inhibitor bioisosteric benzamide
    prepn; microsomal triglyceride transfer protein secretion inhibitor; MTP
     secretion inhibitor; biphenylcarboxamide prepn treatment
```

atherosclerosis; insulin dependent diabetes mellitus NIDDM treatment; coronary heart disease obesity treatment piperazinylpyridine prepn; hyperlipidemia postprandial hyperlipemia mixed dyslipidemia hyperlipoproteinemia treatment biphenylcarboxamide prepn; hypercholesterolemia hypertriglyceridemia treatment biphenylcarboxamide prepn

- L1 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2001:900245 CAPLUS
- DN 136:272649
- TI Synthesis and biological evaluation of new 4-arylpiperidines and 4-aryl-4-piperidinols: dual Na+ and Ca2+ channel blockers with reduced affinity for dopamine D2 receptors
- AU Annoura, Hirokazu; Nakanishi, Kyoko; Uesugi, Mayumi; Fukunaga, Atsuko; Imajo, Seiichi; Miyajima, Atsuko; Tamura-Horikawa, Yoshiko; Tamura, Shigeki
- CS Suntory Biomedical Research Limited, Mishima-gun, Shimamoto-cho, Wakayamadai, Osaka, 618-8503, Japan
- SO Bioorganic & Medicinal Chemistry (2001), Volume Date 2002, 10(2), 371-383 CODEN: BMECEP; ISSN: 0968-0896
- PB Elsevier Science Ltd.
- DT Journal
- LA English
- OS CASREACT 136:272649
- RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- A series of novel 4-arylpiperidines and 4-aryl-4-piperidinols was synthesized and evaluated for blocking effects on both neuronal Na+ and T-type Ca2+ channels and binding affinity for dopamine D2 receptors. of the compds. blocked both ion channels with potency greater than or equal to flunarizine which was used as a reference standard In addition, these compds. had significantly reduced affinity for dopamine D2 receptors which is common in this class of structure. Some of the compds. exhibited potent anticonvulsant effects on audiogenic seizures in DBA/2 mice, indicating their excellent brain permeability. Neuroprotective activity was also assessed in a transient middle cerebral artery occlusion (MCAO) Three compds. significantly reduced neuronal damage without affecting ischemic hyperthermia, while flunarizine produced only minor redns. In particular, I had 1.7-fold the potency in this MCAO model but only 1/20 the affinity for dopamine D2 receptors as flunarizine. Cinnamyl, phenacyl and phenoxypropanol groups appeared to be structurally and biol. equivalent Moreover, di-Ph ether and biphenyl groups occupy a similar space, suggesting that both groups act as a bioisostere for the blockade of ion channels; however, this is not the case for dopamine D2 receptors since only biphenyl compds. had high affinity similar to flunarizine. Compound I (SUN N5030) has a good pharmacol. profile and may be useful in the alleviation and treatment of ischemic diseases.
- L1 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1999:671595 CAPLUS
- DN 132:161012
- TI New non-peptide angiotensin II receptor antagonists, 1. Substituted quinoline derivatives
- AU Jiang, Xuntian; Xu, Tianlin; Hua, Weiyi; Zhu, Dongya; Yu, Jing; Liang, Shaomei
- CS New Drugs Research Center, China Pharmaceutical University, Nanjing, 210009, Peop. Rep. China
- SO Journal of Chinese Pharmaceutical Sciences (1999), 8(3), 123-134 CODEN: JCHSE4; ISSN: 1003-1057
- PB Beijing Medical University, School of Pharmaceutical Sciences
- DT Journal
- LA English
- RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

- The design, synthesis and angiotensin II (A II) antagonist activities of a series of quinoline derivs. (I.apprx.III) with ZD-8731 as lead compound are described. The biphenyl tetrazole moiety of ZD-8731 was replaced by bioisosteric N-phenylpyrrole carboxylic acid, N-phenylpyrrole tetrazole and phenoxyphenylacetic acid to give compds. (I), (II) and (III), resp. However, these changes proved to be detrimental to activities. In a test for antagonizing A II in vitro using isolated rabbit aorta rings, all the compds. exerted competitive antagonism. The most potent active angiotensin II receptor antagonists of these series were (Id) (pA2=6.8), (IIa) (pA2=7.7) and (IIIc) (pA2=7.2), resp., which had the activity 1/40, 1/5 and 1/12 that of ZD-8731 (pA2=8.4), resp. Their structure-activity relationships and conformational comparison are discussed.
- L1 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1995:924327 CAPLUS
- TI Orally active AII antagonists: 2-butyl-5-chloro-3-{5-[2-(1H-tetrazol-5-YL-phenyl)-phenyl]-pyrimidin-2-ylmethyl}-3H-imidazole-4-carboxylic acid and related analogs.
- AU Dina, Michael S.; Zembrowski, William J.; Bussolotti, Donald L.; Aldinger, Charles E.; Boss, Holly A.; Ellery, Suzanne S.; MacAndrew, Joseph T.; Burkhard, Michael R.; Rauch, Albert L.; et al.
- CS Pfizer Inc., Groton, CT, 06340, USA
- SO Book of Abstracts, 210th ACS National Meeting, Chicago, IL, August 20-24 (1995), Issue Pt. 2, MEDI-063 Publisher: American Chemical Society, Washington, D. C. CODEN: 61XGAC
- DT Conference; Meeting Abstract
- LA English
- AB Since the discovery of AII antagonists losartan (1) and its metabolite, EXP 3174, (2), there has been an intense effort by several labs. to search for newer and potentially superior antagonists. Because of a paucity of knowledge pertaining to potential heterocyclic bioisosteres of the biphenyl moiety, we focused our effort on electron deficient heterocycles such as pyridazine, pyridine and pyrimidine to design new AII antagonists. Compds. 9 and 22 were especially potent antagonists with oral antihypertensive activity in animal models.
- L1 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1995:667003 CAPLUS
- DN 123:284890
- TI Novel Angiotensin II Receptor Antagonists. Design, Synthesis, and in Vitro Evaluation of Dibenzo[a,d]cycloheptene and Dibenzo[b,f]oxepin Derivatives. Searching for Bioisosteres of Biphenyltetrazole Using a Three-Dimensional Search Technique
- AU Kiyama, Ryuichi; Honma, Tsunetoshi; Hayashi, Kunio; Ogawa, Masayoshi; Hara, Mariko; Fujimoto, Masafumi; Fujishita, Toshio
- CS Shionogi Research Laboratories, Shionogi Co. Ltd, Osaka, 553, Japan
- SO Journal of Medicinal Chemistry (1995), 38(14), 2728-41 CODEN: JMCMAR; ISSN: 0022-2623
- PB American Chemical Society
- DT Journal
- LA English
- TI Novel Angiotensin II Receptor Antagonists. Design, Synthesis, and in Vitro Evaluation of Dibenzo[a,d]cycloheptene and Dibenzo[b,f]oxepin Derivatives. Searching for Bioisosteres of Biphenyltetrazole Using a Three-Dimensional Search Technique
- AB Three-dimensional substructure searching (3D search), using the program MACCS-3D, was utilized for designing novel angiotensin II receptor antagonists which contain a bioisostere of the biphenyltetrazole moiety of DuP 753. A 3D query was prepared from an overlay model of substructures of several potent AII antagonists. The search system retrieved 139 compds. from the database MDDR-3D, which

consisted of 29,400 medicinal patent compds. A tricyclic compound was selected from the retrieved compds. and then evolved by considering steric fitness to the overlay model and synthetic feasibility. Finally, various novel AII antagonists having dibenzo[a,d]cycloheptene or dibenzo[b,f]oxepin were designed and synthesized. The receptor binding activity (Ki) for several members of this series was in the 10-10 M range, demonstrating the ability of 3D search technique to explore new lead structures.

IT Isosteric compounds

(bio-, searching for bioisosteres of biphenyltetrazole using a three-dimensional search technique) 124750-99-8, DuP 753

RL: BSU (Biological study, unclassified); BIOL (Biological study) (designing angiotensin II receptor antagonists containing a bioisostere of the biphenyltetrazole moiety of DuP 753)

IT 62778-17-0

IT

RL: BSU (Biological study, unclassified); BIOL (Biological study) (searching for bioisosteres of biphenyltetrazole using a three-dimensional search technique)

- L1 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1993:625916 CAPLUS
- DN 119:225916
- TI Synthesis of N-alkyl-1,2,4-oxadiazinones as angiotensin-II (AT1) receptor antagonists
- AU Weller, Harold N.; Miller, Arthur V.; Dickinson, Kenneth E. J.; Hedberg, S. Anders; Delaney, Carol L.; Serafino, Randolph P.; Moreland, Suzanne
- CS Bristol-Myers Squibb Pharm. Res. Inst., Princeton, NJ, 08543-4000, USA
- SO Heterocycles (1993), 36(5), 1027-38 CODEN: HTCYAM; ISSN: 0385-5414
- DT Journal
- LA English
- OS CASREACT 119:225916
- AB 4-Alkyl-1,2,4-oxadiazinones I (R = alkyl) were prepared by regiospecific alkylation of the corresponding 4H-oxadiazinones, which were prepared by a trimethylaluminum mediated cyclization reaction. Alkylation was regiospecific and generally facile; in the case of (butyl) (phenyl) oxadiazinone, however, an unusual fragmentation reaction occurred. A homochiral oxadiazinone was also prepared and alkylated under the described conditions. 4-Biphenylmethyl-1,2,4-oxadiazinones were potent angiotensin II receptor antagonists. The imidazole ring in angiotensin II antagonists such as EXP-7711 were replaced by bioisosteric heterocycles. The effects of the replacement of the carboxy group in I was discussed.